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| 51472 7590 02/19/2008 GARLICK HARRISON & MARKISON P.O. BOX 160727 AUSTIN, TX 78716-0727 | | | EXAMINER BURROWES, LAWRENCE J | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/668,527

Applicant(s)

KARAOGUZ, JEYHAN

Examiner

LAWRENCE J. BURROWES

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 10, 14-17, 20, 25, 27, 28, 32, 37-40, 48-50, 52 and 57 is/are rejected.
- 7) ☒ Claim(s) 3, 5-9, 11-13, 18, 19, 21-24, 26, 29-31, 33-36, 41-47, 53-56 and 58 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 2, 10, 16, 17, 25, 27, 39, 48, 50, 52 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parry (7,149,529) in view of Plasson et al (6,795,688) hereafter Plasson.

For claims 1, 39, 40 and 48, Parry disclose a WPAN (Wireless Personal Area Network) (see **Figure 4, wireless network made up of communicating devices**), the WPAN comprising: a PNC (piconet coordinator) (see **Figure 4 Box 14, host**); a plurality of DEVs (user piconet devices) (see **Figure 4 Box 14, users**); wherein the PNC transmits UWB (Ultra Wide Band) pulses to each DEV

within the plurality of DEVs (**communication between devices are streams or pulses**); wherein after receiving its respective UWB pulse, each DEV within the plurality of DEVs transmits a UWB pulse back to the PNC (**see column 4 lines 56-66, UWB signals are used for the host and users to communicate with each other**); wherein the PNC performs ranging of the relative position of each DEV within the plurality of DEVs using the time duration of round trip time of the transmitted UWB pulse and the received UWB pulse thereby determining the relative distance between the PNC and each DEV within the plurality of DEVs (**see column 4 lines 56-67 and column 5 lines 1-6, the distance/location module determines the location/distance of the user from the host**).

Parry disclose all the limitations of the claimed invention except wherein, based on the ranging of each DEVs of the plurality of DEVs, the PNC groups the plurality of DEVs into at least two groups and identifies a corresponding profile for each group; and wherein the profile of each group governs the communication between the DEVs of that group and the PNC.

Plasson from the same or similar fields of endeavor teaches wherein, based on the ranging of each DEVs of the plurality of DEVs, the PNC groups the plurality of DEVs into at least two groups and identifies a corresponding profile for each group (**see column 14 lines 27-44, device within range and device mode is determined from multiple attributes**); and wherein the profile of each group governs the communication between the DEVs of that group and the PNC (**see Figure 3A, devices communicate with one another in a group**).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify/implement group parameters of Plasson into the network of Parry by way of programming. The motivation to do so would be to control access security features.

Regarding claim 2, the WPAN includes a first piconet and a second piconet (see Figure 4, zone 1 is first piconet and zone 2 is second piconet); the PNC is a first PNC (see Figure 4 Box 14 in zone 1); the plurality of DEVs is a first plurality of DEVs (see Figure 4 box 12 in zone 1); the second piconet includes a second PNC (see Figure 4 Box 14 in zone 2) and a second plurality of DEVs (see Figure 4 box 12 in zone 2); the first PNC and the second PNC perform ranging of all the DEVs of the first plurality of DEVs and the second plurality of DEVs using transmitted and received UWB pulses to and from each of the DEVs of the first plurality of DEVs and the second plurality of DEVs (see column 5 lines 55-64 and column 7 lines 39-54, depending on the distance the users are grouped in different access zones); and based on the ranging of all of the DEVs, the first PNC and the second PNC operate cooperatively to group each of the DEVs of the first plurality of DEVs and the second plurality of DEVs into either the first piconet or the second piconet (see column 5 lines 55-64 and column 7 lines 39-54, depending on the distance the users are grouped in different access zones).

For claims 16 and 50, Parry disclose a WPAN (Wireless Personal Area Network) **(see Figure 4, wireless network made up of communicating devices)**, the WPAN comprising: a PNC (piconet coordinator) **(see Figure 4 Box 14, host)** that include GPS (Global Positioning System) functionality that is operable to determine the specific location of the PNC within the WPAN **(see column 6 lines 54-60, host includes GPS to determine location of itself)**; a plurality of DEVs (user piconet devices) **(see Figure 4 Box 14, users)**; wherein each DEV of the plurality of DEVs includes GPS functionality that is operable to determine the specific location of that DEV within the WPAN **(see column 6 lines 54-60, users includes GPS to determine location of itself)**; wherein each DEV of the plurality of DEVs communicates information corresponding to its specific location to the PNC **(devices in specific zones communicate to the host in order to gain access in the specific zone)**.

Parry disclose all the limitations of the claimed invention except wherein, based on the ranging of each DEVs of the plurality of DEVs, the PNC groups the plurality of DEVs into at least two groups and identifies a corresponding profile for each group; and wherein the profile of each group governs the communication between the DEVs of that group and the PNC.

Plasson from the same or similar fields of endeavor teaches wherein, based on the ranging of each DEVs of the plurality of DEVs, the PNC groups the plurality of DEVs into at least two groups and identifies a corresponding profile for each group **(see column 14 lines 27-44, device within range and device**

mode is determined from multiple attributes); and wherein the profile of each group governs the communication between the DEVs of that group and the PNC **(see Figure 3A, devices communicate with one another in a group).**

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify/implement group parameters of Plasson into the network of Parry by way of programming. The motivation to do so would be to control access security features.

Regarding claim 17, wherein: the WPAN includes a first piconet and a second piconet **(see Figure 4, zone 1 is first piconet and zone 2 is second piconet);** the PNC is a first PNC **(see Figure 4 Box 14 in zone 1);** the plurality of DEVs is a first plurality of DEVs **(see Figure 4 Box 12 in zone 1);** the second piconet includes a second PNC **(see Figure 4 Box 14 in zone 2)** and a second plurality of DEVs; each DEV of the second plurality of DEVs **(see Figure 4 Box 12 in zone 2)** includes GPS functionality that is operable to determine the specific location of each DEV of the second plurality of DEVs within the WPAN **(see column 6 lines 54-60, users includes GPS to determine location of itself);** each DEV of the second plurality of DEVs and of the first plurality of DEVs communicates information corresponding to its specific location to the first PNC and to the second PNC **(devices in specific zones communicate to the host in order to gain access in the specific zone);** and based on the specific locations of each DEV of the first plurality of DEVs and of the second plurality of

DEVs with respect to the first PNC and the second PNC, the first PNC and the second PNC operate cooperatively to group each of the DEVs of the first plurality of DEVs and the second plurality of DEVs into either the first piconet or the second piconet (**see column 5 lines 55-64 and column 7 lines 39-54, depending on the distance the users are grouped in different access zones in which they communicate with either the first host in zone 1 or the second host in zone 2).**

Regarding claim 57, wherein: the PNC detects a change in position of at least one DEV of the plurality of DEVs that has been grouped into a first group; and based on the change in position of the at least one DEV of the plurality of DEVs, grouping the at least one DEV of the plurality of DEVs into a second group (see column 7 lines 39-54, if the users move into different zones then it will change the position and the host in the other zone will let it gain access and it will communicate with the new host).

For claim 27, Parry disclose a WPAN (Wireless Personal Area Network), the WPAN comprising: a first PNC (**see Figure 4 Box 14 in zone 1**); a second PNC (**see Figure 4 Box 14 in zone 2**); a plurality of DEVs (user piconet devices) (**see Figure 4 Box 12, users**); wherein the first PNC and the second PNC transmit UWB (Ultra Wide Band) pulses to each user DEV within the plurality of DEVs (**see column 4 lines 56-66, UWB signals are used for the host and users to**

communicate with each other); wherein after receiving its respective UWB pulse, each DEV within the plurality of DEVs transmits a UWB pulse back to both the first PNC and the second PNC **(see column 4 lines 56-66, UWB signals are used for the host and users to communicate with each other)**; wherein both the first PNC and the second PNC perform ranging of the relative position of each DEV within the plurality of DEVs using the time duration of round trip time of the transmitted UWB pulse and the received UWB pulse thereby determining the relative distance between the first PNC and the second PNC and each DEV within the plurality of DEVs **(see column 5 lines 55-64 and column 7 lines 39-54, depending on the distance the users are grouped in different access zones in which they communicate)**.

Parry disclose all the limitations of the claimed invention except wherein, based on the ranging of each DEV of the plurality of DEVs, the first PNC and the second PNC operate cooperatively to group the plurality of DEVs into at least two groups and also operate cooperatively to identify a corresponding profile for each group; and wherein the profile of each group governs the communication between the DEVs of that group and either the first PNC or the second PNC.

Plasson from the same or similar fields of endeavor teaches wherein, based on the ranging of each DEV of the plurality of DEVs, the first PNC and the second PNC operate cooperatively to group the plurality of DEVs into at least two groups and also operate cooperatively to identify a corresponding profile for each group **(see column 14 lines 27-44, device within range and device mode is**

determined from multiple attributes); and wherein the profile of each group governs the communication between the DEVs of that group and either the first PNC or the second PNC **(see Figure 3A, devices communicate with one another in a group).**

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify/implement group parameters of Plasson into the network of Parry by way of programming. The motivation to do so would be to control access security features.

For claims 10, 25 and 52, Parry discloses all the limitations of the claimed invention except wherein: the PNC repeatedly performs ranging of the position of each DEV within the plurality of DEVs after every elapse of a predetermined period of time.

Plasson from the same or similar fields of endeavor teaches wherein: the PNC repeatedly performs ranging of the position of each DEV within the plurality of DEVs after every elapse of a predetermined period of time (see column 10 lines 56-60, period polling of devices interpreted as ranging).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify/implement group parameters of Plasson into the network of Parry by way of programming. The motivation to do so would be to control access security features.

4. Claims 14, 15, 37, 38 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parry in view of Federal Communication Commission (FCC 02-48) here after FCC.

For claims 14, 15, 37, 38 and 49, Parry disclose all the limitations of the claimed invention except wherein the UWB pulses are generated using a frequency band of a UWB frequency spectrum that spans from approximately 3.1 GHz (Giga-Hertz) to approximately 10.6 GHz; the UWB frequency spectrum is divided into a plurality of frequency bands; and each frequency band of the plurality of frequency bands has a bandwidth of approximately 500 MHz (Mega-Hertz).

FCC from the same or similar fields of endeavor teaches wherein the UWB pulses are generated using a frequency band of a UWB frequency spectrum that spans from approximately 3.1 GHz (Giga-Hertz) to approximately 10.6 GHz (see page 3 paragraph 5); the UWB frequency spectrum is divided into a plurality of frequency bands (see page 15 paragraph 31); and each frequency band of the plurality of frequency bands has a bandwidth of approximately 500 MHz (Mega-Hertz) (page 14 paragraph 27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify/implement the spectrum of the FCC standard into the devices. The motivation to do so would be to adhere to the government standards.

5. Claim 5, 20, 28 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parry in view of Plasson, in further view of Ganton (6,973,335).

For claim 5, 20 and 32, Parry in view of Plasson disclose all the limitations of the claimed invention except wherein: one of the profiles includes at least one of a data rate, a modulation density, a code having a code rate, and a TFC (time frequency code).

Ganton from the same or similar fields of endeavor teaches wherein: one of the profiles includes at least one of a data rate, a modulation density, a code having a code rate, and a TFC (time frequency code) (see column 6 lines 1-8, average data rate attribute).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify/implement

For claim 28, Parry in view of Plasson disclose all the limitations of the claimed invention except wherein: one group of the at least two groups that includes a first plurality of DEVs selected from the plurality of DEVs and the first PNC forms a first piconet; and another group of the at least two groups that includes a second plurality of DEVs selected from the plurality of DEVs and the second PNC forms a second piconet.

Ganton from the same or similar fields of endeavor teaches wherein: one group of the at least two groups that includes a first plurality of DEVs selected

from the plurality of DEVs and the first PNC forms a first piconet (see Figure 2, piconet A); and another group of the at least two groups that includes a second plurality of DEVs selected from the plurality of DEVs and the second PNC forms a second piconet (see Figure 2, piconet B)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify/implement the scatternet of Ganton into the network. The motivation to do so would be to increase the access security of the devices.

Allowable Subject Matter

6. Claims 3, 5, 6-9, 11, 12, 13, 18, 19, 21-24, 26, 29-31, 33-36, 41-47, 53-56 and 58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments, see pages 18-26, filed 24 October 2007, with respect to the 102(e) rejections have been fully considered and are persuasive. The 102(e) rejections of claims 1, 2, 16, 17, 27, 28, 39, 48, 50 and 57 has been withdrawn.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gandolfo (7184767)

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAWRENCE J. BURROWES whose telephone number is (571) 270-1419. The examiner can normally be reached on Monday - Thursday 5:30am - 2pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan D. Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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LJB



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SUPERVISORY PATENT EXAMINER

